

Amendments to the Claims:

1. (currently amended) A system comprising:

in a vehicle suspension having an actuator, switch circuitry powered by energy from movement of the actuator to passively damp the actuator during a failure of a power supply.
2. (previously presented) The system of claim 1 in which the actuator has a coil assembly, the switch circuitry including a switch for electrically connecting the coil assembly.
3. (original) The system of claim 2 in which the coil assembly is a multiple-phase coil assembly, the switch electrically connecting one or more coil ends to change the passive damping characteristic of the actuator.
4. (previously presented) The system of claim 2 in which the switch circuitry comprises a solid-state device.
5. (previously presented) The system of claim 4 also comprising, in the vehicle suspension, clamp circuit including a rectifier,

in which the switch circuitry comprises a single unidirectional switch.
6. (previously presented) The system of claim 1 in which the actuator includes an armature and a stator, the movement of the actuator generating a back electromotive force (EMF) as a result of the armature moving relative to the stator within the actuator, the back EMF powering the switch circuitry.
7. (original) The system of claim 6 in which the back EMF is boosted by a supplemental circuit.

8. (original) The system of claim 7 in which the supplemental circuit comprises a bipolar Royer oscillator capable of operating at an input voltage of approximately 0.5 volts.
9. (previously amended) The system of claim 1 in which the switch circuitry is also enabled during vehicle startup and shutdown.
10. (cancelled)
11. (previously presented) The system of claim 1 in which the switch circuitry is pulsed to change the passive damping characteristic of the actuator.
12. (currently amended) A system comprising:

in a vehicle suspension system having an actuator, an active clamp function provided by power-switching devices for the actuator; and

switch circuitry powered by energy from a motion of the actuator to generate a passive damping function during a failure of a power supply.
13. (previously presented) The system of claim 12 in which the actuator has a multiple-phase coil assembly, the switch circuitry including a switch for electrically connecting one or more coil ends to change a passive damping characteristic of the actuator.
14. (previously presented) The system of claim 13 in which the switch circuitry comprises a solid-state device.
15. (previously presented) The system of claim 14 also comprising a clamp circuit including a rectifier,

in which the switch circuitry comprises a single unidirectional switch.
16. (previously presented) The system of claim 12 in which the switch circuitry is also enabled during a vehicle startup and shutdown.

17. (canceled)
18. (previously presented) The system of claim 12 in which the switch circuitry is pulsed to change the passive damping characteristic of the actuator.
19. (currently amended) A vehicle suspension system comprising:

an electronic controller adapted to produce an actuator control signal; and

an actuator adapted to receive electrical power from an external power source and to produce a controlled force in response to the actuator control signal produced by the electronic controller,

the actuator including switch circuitry powered by energy from power generated within the actuator by movement of the actuator itself to generate a passive damping characteristic of the actuator during a failure of a power supply.
20. (previously presented) The system of claim 19 in which the actuator has a coil assembly, the switch circuitry including a switch for electrically connecting the coil assembly.
21. (original) The system of claim 20 in which the coil assembly is a multiple-phase coil assembly, the switch electrically connecting one or more coil ends to change the passive damping characteristic of the actuator.
22. (original) The system of claim 20 in which a movement of the actuator generates an electromotive force (EMF) to operate the switch adapted to receive the electromotive force to maintain electrical connection between windings.
23. (previously presented) The system of claim 20 in which the switch circuitry comprises a solid-state device.
24. (previously presented) The system of claim 23 also comprising a clamp circuit including a rectifier,

in which the switch circuitry comprises a single unidirectional switch.

25. (previously presented) The system of claim 19 in which the switch circuitry is pulsed to change the passive damping characteristic of the actuator.
26. (currently amended) A method comprising:

in a vehicle suspension having an actuator, during a failure of a power supply,

generating a passive damping characteristic of the actuator using switch circuitry powered by energy from movement of the actuator.
27. (previously presented) The method of claim 26 in which the actuator has a coil assembly, the switch circuitry including a switch for electrically connecting the coil assembly.
28. (original) The method of claim 27 in which the coil assembly is a multiple-phase coil assembly, the switch electrically connecting one or more coil ends to change the passive damping characteristic of the actuator.
29. (previously presented) The method of claim 27 in which the switch circuitry comprises a solid-state device.
30. (previously presented) The method of claim 29 in which a clamp circuit includes a rectifier and the switch circuitry comprises a single unidirectional switch.
31. (previously presented) The method of claim 26 in which the actuator includes an armature and a stator, the movement of the actuator generating a back electromotive force (EMF) as a result of the armature moving relative to the stator within the actuator, which powers the switch circuitry.
32. (original) The method of claim 31 in which the back EMF is boosted by a supplemental circuit.

33. (original) The method of claim 32 in which the supplemental circuit includes a bipolar Royer oscillator capable of operating at an input voltage approximately 0.5 volts.
34. (previously presented) The method of claim 26 in which the switch circuitry is also enabled during a vehicle startup and shutdown.
35. (canceled)
36. (original) The method of claim 26 in which the actuator is powered by a power electronics module that further provides an active clamp to the actuator.
37. (previously presented) The method of claim 36 in which the active clamp and the switch circuitry are simultaneously enabled when a failure is detected or during a vehicle shutdown.
38. (previously presented) The method of claim 36 in which the active clamp is enabled and the switch circuitry is disabled sequentially during a vehicle startup.
39. (previously presented) The method of claim 36 in which the switch circuitry and the active clamp are sequentially disabled when switching back from failure to normal operation mode.
40. (previously presented) The method of claim 36 in which a clamp circuit status signal is fed to the power electronics module to inhibit the power electronics module from switching when the switch circuitry is enabled.
41. (previously presented) The method of claim 26 in which the switch circuitry is pulsed to change the passive damping characteristic of the actuator.
- 42-43. (canceled).
44. (previously presented) The system of claim 36 in which the power electronics module is powered by a battery.

45. (previously presented) The system of claim 36 in which the power electronics module is powered by a large valued capacitor.

46-58. (canceled).

59. (previously presented) The system of claim 1 in which the failure includes a failure of a power supply of a vehicle including the system.

60. (previously presented) The system of claim 1 in which the failure includes a failure of a connection between a power supply and the suspension.

61. (previously presented) The system of claim 1 in which the switch circuitry is also powered by energy from movement of the actuator to generate the passive damping characteristic during startup and shutdown of a vehicle including the system.

62. (previously presented) A method for use in a vehicle having a power generation system and a suspension having an actuator, the method comprising:

even when the power generation system fails to provide power, using power derived from movement of the actuator to electrically enable a switch to passively damp the actuator.

63. (new) A system comprising

in a vehicle suspension having an actuator, switch circuitry to respond to a failure by performing a switching operation to achieve passive damping of the actuator during the failure, the switch circuitry being powered. to perform the switching operation during the failure, by movement of the actuator.

64. (new) The system of claim 63 in which the actuator has a coil assembly, the switch circuitry including a switch for electrically connecting the coil assembly to change the passive damping characteristic of the actuator.

65. (new) The system of claim 64 in which the coil assembly comprises a multiple-phase coil assembly.
66. (new) The system of claim 63 in which the switch circuitry comprises a solid-state device.
67. (new) The system of claim 66 also comprising, in the vehicle suspension, a clamp circuit including a rectifier, and in which the solid-state device comprises a single unidirectional switch.
68. (new) The system of claim 63 in which the actuator includes an armature and a stator, the movement of the actuator generating a back electromotive force (EMF) as a result of the armature moving relative to the stator within the actuator, the switch circuitry being powered by the back EMF.
69. (new) The system of claim 68 also comprising a supplemental circuit to boost the back EMF .
70. (new) The system of claim 69 in which the supplemental circuit comprises a bipolar Royer oscillator capable of operating at an input voltage of approximately 0.5 volts.
71. (new) The system of claim 63 in which the switch circuitry is also to respond to vehicle startup and shutdown.
72. (new) The system of claim 63 in which the switching operation is pulsed to control a passive damping characteristic of the actuator.